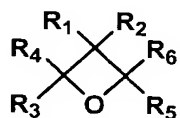


What is claimed is:

1. A photocurable ink for ink-jet recording, comprising an oxetane compound having a substituent at the 2-position of the molecule.
2. The photocurable ink for ink-jet recording of claim 1, wherein the oxetane compound has an electron-donating group and an electron-withdrawing group in the molecule.
3. The photocurable ink for ink-jet recording of claim 1, wherein the oxetane compound is represented by General Formula (1):

General Formula (1)



wherein each R₁ to R₆ is independently a hydrogen atom or a substituent, provided that at least one of R₃ and R₄ is a substituent, and at least one of R₅ and R₆ is a substituent.

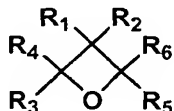
4. The photocurable ink for ink-jet recording of claim 3, wherein the oxetane compound has an electron-donating group

at the 2-position of the molecule, and an electron-withdrawing group at the 4-position of the molecule.

5. The photocurable ink for ink-jet recording of claim 2, wherein the oxetane compound has a substituent at the 3-position of the molecule.

6. The photocurable ink for ink-jet recording of claim 1, wherein the oxetane compound has at least two oxetane rings in the molecule, and at least one of the rings is represented by General Formula (1):

General Formula (1)



wherein each R₁ to R₆ is independently a hydrogen atom or a substituent, provided that at least one of R₃ and R₄ is a substituent, and at least one of R₅ and R₆ is a substituent.

7. The photocurable ink for ink-jet recording of claim 6, wherein at least one of oxygen atoms of the oxetane rings has a largest electron density in the oxetane compound.

8. The photocurable ink for ink-jet recording of claim 1, wherein the oxetane compound further comprises an oxygen atom other than an oxygen atom of an oxetane ring, and an electron density of the oxygen atom other than the oxygen atom of the oxetane ring is less than an electron density of the oxygen atom of the oxetane ring.

9. The photocurable ink for ink-jet recording of claim 1, wherein the ink further comprises a photo-acid generating compound.

10. The photocurable ink for ink-jet recording of claim 1, wherein the ink further comprises a compound selected from the group consisting of:

- (i) mono-oxetane ring containing compounds;
- (ii) epoxy compounds; and
- (iii) vinyl ether compounds.

11. A method for forming an image, comprising the steps of:
jetting a droplet of the ink of claim 1 from an ink-jet head onto a recording material; and
irradiating the jetted droplet of the ink with a an active ray,

wherein an amount of an energy input to an exposure light source for supplying the active ray is 0.1 to 50 W/cm.

12. A method for forming an image, comprising the steps of:
jetting a droplet of the ink of claim 1 from an ink-jet head onto a recording material; and
irradiating the jetted droplet of the ink with an active ray,

wherein the irradiating step is carried out between 0.001 and 2.0 seconds after the jetted droplet of the ink reaches on the recording material.

13. A method for forming an image of claim 11,
wherein an illuminance on a surface of the recording material during the irradiating step is from 0.1 to 50 mW/cm² in a range of 200 to 450 nm.

14. A method for forming an image of claim 11,
wherein the active ray is an ultraviolet ray having a peak wavelength of 200 to 420 nm.